IEEE P802.11
Wireless LANs

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| Proposed Draft Text for Sensing Measurement Report frame (excl. format) |
| Date: 2022-01-DD |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Claudio da Silva | Meta Platforms, Inc |  |  | claudiodasilva@fb.com |
|  |  |  |  |  |

Abstract

This document includes proposed draft text for the “Sensing Measurement Report frame” sub-clause as defined in TGbf’s SFD. The Sensing Measurement Report frame that is defined in the SFD by:

A Sensing Measurement Report frame, which allows a sensing receiver to report sensing measurements, is defined. This frame contains at least the following two fields:

* Measurement report control field: Contains information necessary to interpret the measurement report field.
* Measurement report field: Carries CSI measurements obtained by a sensing receiver.

The format used in the measurement report field is beyond the scope of this contribution.

|  |
| --- |
| Public |

**9.6.7.1 Public action frames**

**Table 9-447 – Public Action field values**

|  |  |
| --- | --- |
| Public Action field value | Description |
| 54 | Sensing Measurement Report |
| 55-–255 | Reserved |

**9.6.7.54 Sensing Measurement Report frame format**

The Sensing Measurement Report frame is an Action No Ack of category Public transmitted to provide WLAN sensing measurements. The format of the Sensing Measurement Report frame Action field is shown in Figure 9-1 (Sensing Measurement Report frame Action field format).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Category | Public Action | Dialog Token | Sensing MeasurementReport |
| Octets | 1 | 1 | 1 | variable |

**Figure 9-1—Sensing Measurement Report frame Action field format**

The Category field is defined in 9.4.1.11 (Action field).

The Public Action field is defined in 9.6.7.1 (Public Action frames).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field). It is set to a nonzero TBD value chosen by the STA sending the sensing measurement request to identify the request/report transaction.

The Sensing Measurement Report field contains one or more of the Sensing Measurement Report elements described in 9.4.2.21 (Sensing Measurement Report element).

|  |
| --- |
| Protected |

**9.4.1.11 Action field**

**Table 9-79 - Category Values**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Code | Meaning | See Subclause | Robust | Group Addressed Privacy |
| ----- |  |  |  |  |
| 35 | Protected Sensing Frame | 9.6.35 | Yes | No |
| ----- |  |  |  |  |

**9.6.35 Protected Sensing Frame details**

**9.6.35.1 Protected Sensing Frame Action field**

The Protected Sensing Frame Action field, in the one octet immediately after the category field, differentiates between various Protected Sensing frames as shown in the Table 9-1 (Protected Sensing Frame Action Field values).

**Table 9-1 Protected Sensing Action Field values**

|  |  |
| --- | --- |
| Value | Meaning |
| 0 | Reserved |
| 1 | Protected Sensing Measurement Report frame. The format of the frame after the action field is identical to the format of Sensing Measurement Report public action 9.6.7.54 (Sensing Measurement Report frame format). It is carried in a Management Action No Ack frame.  |
| ----- |  |
|  | Reserved |

|  |
| --- |
| Measurement report element |

**9.4.2.21 Sensing Measurement Report element**

**9.4.2.21.1 General**

The Sensing Measurement Report element contains a single sensing measurement report. The format of the Sensing Measurement Report element is shown in Figure 9-2 (Sensing Measurement Report element format). The Sensing Measurement Report element is included in the Sensing Measurement Report frame, as described in 9.6.7.54 (Sensing Measurement Report frame format), and in the Protected Sensing Measurement Report frame, as described in 9.6.35.1 (Protected Sensing Frame Action field). The use of Sensing Measurement Report elements and frames is described in (Clause 11).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Element ID | Length | Sensing Measurement Report Type | Sensing Measurement Report Control | Sensing MeasurementReport |
| Octets | 1 | 1 | TBD | TBD | variable |

**Figure 9-2—Sensing Measurement Report element format**

The Element ID and Length fields are defined in 9.4.2.1 (General).

The Sensing Measurement Report Type field is set to a number that identifies the type of sensing measurement report. The Sensing Measurement Types that have been allocated are shown in Table 9-2 (Sensing Measurement Report Type field definitions for sensing measurement report types).

**Table 9-2—Sensing Measurement Type field definitions for sensing measurement report types**

|  |  |
| --- | --- |
| **Name** | **Sensing Measurement type** |
| 0 | CSI |
| 1-255 | Reserved |

The Sensing Measurement Report Control field contains information necessary to interpret the Sensing Measurement Report field. The format of the Sensing Measurement Report Control field is shown in Figure 9-3 (Sensing Measurement Report Control field).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | Subfield 1 | Subfield 2 | … | … | Subfield N |  |
| Bits: |  |  |  |  |  |  |

**Figure 9-3 – Sensing Measurement Report Control field format**

The subfields of the Measurement Report Control field are defined in Table 9-3 when the Sensing Measurement Type field is set to 0.

**Table 9-3—Subfields of the Sensing Measurement Report Control field when the Sensing Measurement Type field is set to 0**

|  |  |
| --- | --- |
| **Subfield** | **Description** |
| Subfield 1  | (Description) |
| Subfield 2 | (Description) |
| … |  |
| … |  |
| Subfield N | (Description) |

The Sensing Measurement Report field is used to report sensing measurements obtained by a sensing receiver.

Note: The format of this field is being discussed by a different topic group.